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ABSTRACT

The implications of decentralization reform on the amount of serious attention and effort that teachers give to teaching and learning activities are explored in this paper. The discussion is informed by the results of two case studies of school districts recognized as exemplary cases of decentralization. The first section describes limitations of the standard theoretical argument for decentralization, particularly the principal-agent approach. The two case studies are described in the second section, which is based on document analysis and interviews conducted with central office administrators in each of the two districts, four principals (two from each district), and a small group of teachers from each of the four schools. The most significant common element was the extent to which the districts' management arrangements generate interactions in the area of teachers' technical demands, that is, issues related to curriculum and teaching. A conclusion is that technical interactions among teachers form the basis for effective social control, motivational, and learning processes that are necessary to a well-run decentralized system. A critical element of successful decentralization is the explicit structuring of teacher interactions around technical demands. Structural reforms should: direct teachers' attention to their central functions, stimulate them to interact professionally around defined common objectives, and give them a sense of importance. (36 references) (LMI)

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DECENTRALIZATION IN EDUCATION: TECHNICAL DEMANDS AS A CRITICAL INGREDIENT*

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DECENTRALIZATION IN EDUCATION: TECHNICAL DEMANDS AS A CRITICAL INGREDIENT*

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Structural reforms are high on the current national reform agenda in education. The emerging conventional wisdom is that drastic changes in the way education goes about its business are necessary to improve school productivity. In this chapter, we consider one of these reforms - decentralization. Our purpose is to explore its implications for the amount of serious attention and effort teachers give to teaching and learning activities. We begin by laying out the standard theoretical argument for decentralization in organizations and consider its applicability to educational organizations. Finding the argument wanting, we begin to develop a line of reasoning which, we suspect, is better suited to education. Our discussion is informed by the results of two case studies of school districts that are recognized by many as exemplary cases of decentralization. We conclude that decentralization can have marked effects - both beneficial and deleterious - on how work in education is carried out. These effects are heavily dependent on the particular characteristics of the decentralization plan and the context of the school. Drawing on the case study results, we attempt to identify some of these conditions in this chapter.

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STANDARD ARGUMENTS AND EDUCATION

Arguments for organizational decentralization are typically information-based arguments.[1] Different structural arrangements provide openings for expression and influence by different actors who hold different amounts and types of information. The basic principle presumed to guide decentralization in organizations is simple: Those actors with the best information about a particular subject should have the discretion to make decisions about that subject. Consistent with this argument, empirical research has shown two conditions -- large organizational size and complex and/ or dynamic technology -- are likely to lead to decentralized organizational structures.[2] In the case of size, it is presumed that, at some point, decision demands outstrip the decision making capacity of top management. Management is simply not able to process the large volume of information and make all the decisions necessary to manage the organization effectively. Thus, out of sheer necessity, management delegates decision making responsibilities to lower levels in the hierarchy (Blau and Schoenherr, 1971; Child, 1973; Hinings and Lee, 1971; Khandwalla, 1974; Pugh **et al**, 1969). In the case of a complex/ dynamic technology, the reasoning is similar: Top management, not able to keep abreast of technologically required adaptations, delegates responsibility for such decisions to lower level agents who are closer to the relevant information (Galbraith, 1977). In delegating responsibility, organizations presumably weigh the increased coordination and monitoring costs produced by

decentralization with the increased efficiency that results from the decisions of more knowledgeable agents. The central decentralization issue for firms is the design of incentives and contracts that ensure that agents (with discretion) behave in accordance with the preferences of the principals, commonly known as the principal-agent problem.

In education, decentralization proponents argue that the technology of teaching is complex and dynamic and, therefore, decision making about what goes on in the classroom should be located with the classroom teacher, or at least somewhere within the school. Proponents assume, quite reasonably, that teachers understand better than central authorities the requirements of the classroom teaching and learning process. Proponents also presume that the autonomy and discretion of lower level units, meaning schools and the actors within them, are constrained by higher authorities. If these constraints were lifted and schools (particularly teachers) were empowered to use the information they possess with more discretion, it is argued, they would do things differently and better. The expectation is that school level actors, freed from state and district prescriptions, would focus their efforts in ways that lead to greater student achievement.

While this thinking has some theoretical justification (and considerable political appeal), it is difficult to reconcile with theories of "loose coupling" (Bidwell, 1965; March and Olsen, 1976; Meyer and Rowan, 1977; Weick, 1977) and a significant amount of empirical evidence that educational organizations are not tightly

connected and managed.[3] Teachers work fairly autonomously in classrooms;[4] schools operate fairly independently of school districts; and school districts function with considerable freedom from state and federal governments, at least with regard to central teaching and learning tasks (Bidwell, 1965; March and Olsen, 1976; Meyer and Rowan, 1977; Weick, 1976; Meyer and Scott, 1983). In other words, this literature claims that schools and teachers already have the latitude to behave, to a very large extent, on the basis of the information they possess. If decentralization to school level actors has beneficial effects on what happens in terms of classroom teaching and learning -- and many observers of school practice would claim it has -- arguments better grounded in an educational context are needed for understanding why. Something else must be going on in education.

In order to uncover what decentralization means in practice in education, we investigated the operation of two highly reputed decentralized school districts. What we observed is that both the problems faced in the process of decentralization, and the benefits which accrue from it, differed markedly in four ways from what one would expect from the standard decentralization (e.g., principal-agent) literature.

A key assumption, for instance, in the principal-agent literature is that the agents (here the teachers) have well defined goals (preferences, objectives), and the main problem is the conflict between those preferences and those of the principal (the educational system as a whole), as we mentioned earlier. The

central issue is how, and to what extent, economic incentives can be used to align the interests of the two. In our case, we observe that teachers generally hold only unclear and ambiguous goals; they function without a well defined objective function. There are certainly general goals, such as student learning, but general goals give little operational direction, as Simon (1947; 1991) has stressed for over forty years. We suspect the lack of clearly defined objectives on the part of agents (teachers) may be a more basic issue in decentralizing education decisions than the conflict between teachers' objectives and those of the system. A central element in the reportedly successful decentralization reforms we studied, for example, is the provision of mechanisms that help teachers define the objectives associated with their work in fairly concrete terms.[5]

A second key assumption in the principal agent literature is that the agent has more knowledge concerning the production process than does the principal; the central objective of decentralization is to allow the agent to make use of that knowledge. By contrast, we found that one of the central objectives of decentralization in the schools we studied was to promote teachers' learning of new and presumably more effective ways to carry out their work, to enhance teachers' understanding of the process of education. This is an important task because the technology associated with teaching and learning is generally very poorly understood; as economists put it: there is no clear production function.

A further departure from the standard principal-agent paradigm

is that rather than creating problems of agency, we observed decentralization in education reducing agency problems. In a decentralized arrangement, when teachers are involved in decisions about their work, their professional life is more observable and therefore more open to monitoring and influence by others. At least their views of their work, the way they go about planning for it, and their reports about what goes on in their classrooms are more public than in a traditionally organized school where individual teachers function isolated in their classrooms.

A fourth departure from the standard paradigm is that the controls that affect teachers behavior in education tend to be primarily social and cognitive, rather than either the monetary incentives suggested by economic theories or the rules and regulations suggested by bureaucratic theories.

Our analysis overall leads us to conclude that teachers in successful decentralized districts work under conditions where organizational controls over their behavior are, in fact, high relative to what we would expect in traditionally organized schools. Indeed, the discretion of school level actors in many decentralized systems may be far more restricted than the discretion of school level actors in traditionally organized systems.

We suggest that the claims of many analysts (e.g., Chubb and Moe, 1990) that excessive regulation is alienating public school teachers from their work and strangling their creativity are overstated. We argue that teachers in public systems are not

overregulated; they are ignored! The system, as a whole, may be increasingly regulated, but the primary operational effect of central regulation on schools is to turn the attention of critical actors, in particular school and district administrators, away from teaching and learning concerns to other matters.[6] The result is that public school teachers in traditionally organized systems are likely to work in isolation where they get exceedingly little direction in focusing their work and exceedingly little support in carrying it out. As a consequence, teachers' efforts are often not well directed; teachers' learning is limited; teachers' good works are not appreciated or supported; and their bad works are not sanctioned or corrected. In sum, in traditionally organized schools, no one pays much attention to teachers and their work. The daily life of teachers and principals in the decentralized systems we studied are quite different. We describe the district and their management systems below and discuss their effects on the job and work attitudes of school level actors.

THE CASE STUDIES

The Districts

The two districts we studied are known for their innovative governance practices. Both districts locate significant authority at the school site, but the responsibilities are distributed in very different ways in each of the districts. In District A, the principals are clearly the lead actors; in District B, the lead

actors are the teachers. The districts themselves differ in significant ways other than their management approaches, as described below. These differences both complicate and enrich our research effort, as we will discuss later.

District A is located in a well-to-do suburb about thirty miles outside a major urban area in Southern California. It is a fast growing upper-middle class area. Enrollment in the district increased from 12,000 in 1975 to 23,232 in 1989. The enrollment is projected to approach 33,000 in 1995. In the 1989-90 school year, the district operated 24 schools and two new schools were under construction. The district's population is largely white, upwardly mobile, and very supportive of their schools. The percent of students on free/ reduced lunch program is only six percent. The community places a high value on education and teachers consider the district an attractive place to work. The district is a high performer as measured by student achievement tests. The results of the 1988-89 California Assessment Program (CAP) put the district above the 90th percentile in the state on all tests and above the 95th percentile on most of them. One Assistant Superintendent reported there are 40 to 50 applicants for every open teaching position and the district has been hiring as many as 100 people a year. Expenditures per student were $3753 for the 1989-90 school year, somewhat below average for the state of California. Starting teacher salaries were $26,211 and the average salary was $38,391.

District B, located in a state that is primarily rural, has an enrollment of 12,556 students served in 24 schools. Its boundaries encompass a city, which is an attractive tourist and cultural center, as well as sparsely

populated rural communities as far away as fifty miles. The student body is heterogeneous. The Superintendent underscored the socio-economic heterogeneity in the district by describing one school that was able to raise $17,000 with an auction. An auction at that school, he explained, typically attracts hundreds of people from all over the city because valuable items, such as an original R.C. Gorman, might be auctioned off. Yet, he reported there were other schools in the district that could barely raise $150 with considerable effort. Forty-five percent of the students in the district are eligible for free or reduced lunch. Expenditures per student in the district for the 1989-90 school year were $2700. These expenditures are low by national standards, as well as low within the state. Ninety-eight percent of the district's resources are from the state. Teachers' salaries in the district are also low by national standards. Starting salary in the 1989-90 school year was $17,000 and the average salary was $23,493. These salaries are particularly low given the cost of living in the area which the tourist trade drives up.

To get a better understanding of the governance mechanisms in these districts and their implications for practice, we collected data in a three stage process. First, we interviewed nearly all the central office administrators in both districts and reviewed relevant district materials and documents. In the next two stages, we collected data in four selected schools in each district. This effort included interviewing the principals in each of the four schools and subsequently collecting from some of them data on how they allocated their time for a one-week period and the extent of their interaction with district level actors for a one-month period. In the third stage, we collected information from

teachers. This stage included interviews with a small group of teachers, as well as surveys of all the teachers, in each school.[7] In the discussion here we rely mostly on the interview and survey data.

The Decentralization Plans

Because decentralization can take a variety of different forms, we feel it necessary to describe in some detail the management arrangements in each of the districts. As will be evident, the patterns of decentralization in the two districts are quite different. In the section that follows this one, we stress the important commonalities in the two systems. We then discuss some of the different effects associated with the two systems and some of the complications involved in making comparisons.

District A. The District A Superintendent describes his overall management objective to get school level actors to "buy in" to district policies and programs and to encourage school level "entrepreneurship". His strategy for achieving these objectives centers on decentralizing decisions to the schools. While a decentralized strategy characterizes much of the management approach of the district, there are elements of it that are highly centralized. Budget and personnel decisions, for example, are decentralized; curriculum decisions are highly centralized.

Principals receive a discretionary lump sum annual budget to cover almost all school expenses except salaries and major capital expenses. Textbooks, computer labs, media materials, study trips,

some staff development, and minor capital costs, for example, come out of the school budget. The fraction of the total budget that is discretionary is small, perhaps less than ten percent, but important. The Superintendent claims school level budget discretion forces a school to rethink its priorities continually. The district has no guidelines on how the money is to be spent nor on how budget decisions are to be made. According to the Superintendent, "there are 24 (the number of schools) different ways it gets done." In some schools, teachers are heavily involved in the decision process; in others, they are not. Schools receive additional funds through internal district grant competitions, open to teachers and/ or site administrators, as well as through PTA fund raising efforts. Principals claim that the flexibility the budget gives them is critically important to address school-specific problems that they and their teachers define, although the differences among schools in allocation patterns are relatively minor. One school might invest more heavily, for example in establishing math labs while another might address particular staff development needs.

A significant amount of personnel authority also rests with principals in District A. Each school is given a number of personnel staffing units (PSU's) with which the principal configures a school staff. Different types of personnel, e.g., counselors, aides, assistant principals, cost different units in the district's schema. A teacher advisory committee exists at each site, but the involvement of teachers in the process varies by site. Variation in the configuration of personnel across schools

is again small, but principals and teachers claim it gives them important degrees of freedom when they need it. Staff hiring is also the responsibility of the principal. Given the enrollment growth rate in the district, it is a big part of a principal's job and the principals take it very seriously. According to one principal, principals interview as many as thirty individuals for a teaching position. Some candidates are drawn from the pool of applicants available at the district personnel office and some are identified through the extensive independent search and recruiting efforts that principals themselves conduct.

In contrast to budget and personnel decisions, curriculum decisions are made at the district level, although principals and teachers are the prime decision makers. There are no district level curriculum specialists. District level committees (e.g. elementary school language arts, secondary school modern languages, etc.), made up of representative teachers from each of the relevant schools and chaired by a principal, make decisions about the district curriculum for each subject as well as the textbook that will be used by all schools in the district teaching that subject. According to one principal,

> "Schools do not have the latitude to reject a district textbook adoption decision. The district is responsible for delineating and defining the curriculum in terms of text, framework, and philosophy. We will not open that up."[8]

Curriculum decision making in the district is, thus, centralized, but highly participatory. A representative set of lower level

actors make the decisions, but the decisions become district policy.

The process of getting a new high school course approved in the district illustrates the participatory and centralized nature of the curriculum process. The process typically starts with an individual teacher who begins by submitting a course syllabus to the relevant department within the school for review. The proposed course is reviewed next by the district level committee responsible for that particular subject. This committee includes representative teachers of the same subject from all the high schools in the district. If approved, the decision moves back to each of the schools to a school level advisory curriculum council, made up of all the department chairs, who make a recommendation to their principal. With the approval of the principal, the proposal goes to a district level curriculum committee that is made up of one teacher from each of the subject area curriculum committees, district level administrators, and a principal. The district committee then sends its recommendation to the School Board for approval. The process is intentionally long and involved and is similar to the Japanese practice of *ringi*. According to the Superintendent, the process has two important virtues. First, it maintains quality control over the curriculum as a whole and guards against, what the Superintendent calls, a "mish-mash" of course offerings. Second, because it involves many individuals at all levels in the system, it promotes district-wide understanding of the educational focus of the district.

The district also has "articulation" committees for each subject area, again composed of teachers and chaired by a principal, that review curriculum areas for coherence and integration across elementary, middle, and high school levels.

Responsibility for staff development rests with both the district and individual schools. A district level committee of teachers (with a principal chair) organizes staff development activities around newly developed district curricula and newly adopted textbooks as well as around whatever other specific professional development needs they identify. Teachers in the district, many of whom have piloted the materials for a new textbook adoption, conduct much of the district level training. Although teachers are not compensated for attending staff development sessions, which are usually in the evening and include a district-sponsored dinner, the sessions are extremely well attended and the district's program is highly regarded both in and out of the district. Individual schools also carry our their own staff development activities supported with school discretionary funds and focused on areas they define.

District A's management arrangements have essentially been in place for more than a decade. They are mature and well-developed. The Superintendent uses the term "loose-tight" to characterize the district's approach and it appears to capture aptly the district's efforts both to delegate significant authority to school level actors and, at the same time, to maintain coherence and quality control across the educational program of the district.

District B. Unlike District A, the centerpiece of District B's approach is decentralization of curriculum to teachers within a school. Early in his superintendency, the superintendent told the teachers in the district that they were "the key to the solutions for educational problems" and that he "wanted them to be the leaders in the district." He developed no grand scheme into which teacher participation fit as one element. Rather he told teachers to get together and analyze the situation at their school and devise solutions and programs they thought were feasible. According to the Superintendent, "the sky was the limit." The district's commitment and faith in teachers is demonstrated in a number of ways in the district, but probably in no way better than by allowing teachers (with the involvement of parents) to select their own principals when openings occur. In fact, in one school teachers have decided not to hire a principal, but rather to have a teacher committee manage the school.

An important aspect of the District B's story is the steady financial assistance of a foundation and the intensive involvement in the district of a major nationally recognized education reform group. The foundation provides financial support for school-based change that is "student-centered, teacher-initiated, administrator-supported, board-approved, and parent-involved."[9] Functioning symbiotically in the district is the education reform group whose objective is to redesign education in ways that focus school level attention more directly on student learning. Locating greater decision making authority in the classroom and in the school is a

central part of the strategy they propose for achieving this objective. We discuss the significance of this group's involvement later.

Each school in the district has a School Improvement Program (SIP) committee with at least one teacher representative for every ten teachers. The SIP program is the vehicle the foundation uses to allocate financial support. Teachers, either individually or in groups, develop proposals at their school site, pass them through the school SIP committee, and then submit them to the district-level SIP Executive Committee which is made up of one teacher from each school level committee. The proposals are reviewed and signed by, but not necessarily approved by, the school site principal. If the Executive Committee supports the proposal, it goes to the Superintendent and then to the executive director of the foundation for funding. Examples of proposals range from a curriculum development project for one subject to a major restructuring and integration of the complete middle school curriculum. They might also include a parent involvement project or a staff development effort on alternative student assessment strategies. Only proposals that involve major restructuring go to the School Board for approval. Decisions about programs that do not need funding are handled within the school.

In contrast to District A, the management arrangements in District B are relatively new and experimental. The Superintendent willingly entertains any programs coming up from the schools "as long as there is agreement between teachers and parents." He

anticipates a district role in assessment and coordination of school-based reforms sometime in the future, but he has intentionally held off any type of evaluation of school innovations in order not to squelch good ideas in their infancy and to encourage teachers to generate creative alternatives in a relatively risk-free environment.

The central office staff is both districts is lean. In District A, in addition to the Superintendent and Associate Superintendent, there are two Assistant Superintendents, one concerned with elementary and middle schools and the other with high schools. The Assistant Superintendents review school budgets - "just to make sure they are in the black" - and school PSU plans - to make sure they are in compliance with state regulations. Their responsibilities include evaluating the principals in terms of goals each principal sets for his/ her school, as well as serving as staff to the various district level committees. Central office administrators, along with three principals and a representative of the teacher's union, also serve on the Superintendent's Strategic Planning Group which meets regularly to take a long term view of the district, for example, trying to determine what a year 2000 high school graduate should look like in terms of skills and values. Directors of special areas, for example, transportation, maintenance, and categorical programs also sit at the central office. As we mentioned earlier, there are no district level curriculum specialists; developing curriculum is the job of the teachers. All the central office staff, without

exception, define their jobs in terms of support and service to the schools. One Assistant Superintendent reported: "The whole culture of the district is pitched to the schools. We're here to do whatever has to be done to help those schools be successful". Principals corroborated this view.

Administrators at different levels in the system spend a considerable amount of time together resulting in strong district understandings that define "who we are" and "what we do here". Both at the district level and the school level, for example, administrators invariably refer to the district's six goals and mission statement when describing their work. Principals in District A spend an average of 17.4 hours per month on district level issues, such as curriculum and articulation committee work. During the week we collected data, they spent an average of 20 percent of their time interacting in one way or another with at least one other principal. It should probably not be surprising that whenever administrators in the district used the term "we" in interviews, they were referring to the district, not to the school.

The central office in District B is especially lean. The central office staff consists of the Superintendent, an Associate Superintendent, and two Assistant Superintendents, one for Personnel and one for Instruction. The Superintendent is considering abolishing the job of the Assistant Superintendent for Instruction. The central office performs mainly bureaucratic functions, for example, payroll and personnel, for the district. With the exception of tremendous symbolic and political support

from the Superintendent, the schools receive little guidance or support from district level actors. The work of principals in District B is more school bound than that of District A principals. They spend about half as much time with administrators outside their school (11 percent) and about fifty percent more time (30 percent versus 19 percent) working with teachers within their school.

SIMILARITIES: TECHNICAL DEMANDS AND SOCIAL CONTROL

The differences in the administrative arrangements in the two districts are great, but we suspect the similarities between them may be far more important for understanding decentralization in education. The most significant common element is the extent to which the districts' management arrangements generate interactions for school level actors around technical demands, i.e., issues related to curriculum and staff development. This aspect of the districts' operation is central to our discussion because it directly relates to 1) a clarification of goals for teachers' work; and 2) increased teacher understanding of the process of teaching and learning. The interactions also reduce problems of agency, as we discuss below.

Technical Demands and Technical Interactions

School level actors in both districts face technical demands from agents or groups outside the school that provide teachers with

direction in their work, as well as technical support and professional exchange. As should be evident from the discussion below, the amount of direction and support teachers receive is undoubtedly greater than what teachers in traditionally organized schools receive.

In District A, technical demands on teachers originate in the decisions of district level committees who lay out the curriculum the teacher is to follow and who design training sessions for teachers to acquire the skills and knowledge necessary to deliver the curriculum. District level activities also have ripple effects within the schools; teachers report high levels of interaction with their colleagues as they react to and interpret district stimuli. Beyond their normal teaching responsibilities, teachers in the district spend 14.7 hours per month, on average, on activities primarily focused on curriculum and staff development; the ratio of school-based to district-based activity is a more than 2-to-1.[10]

The high levels of interaction within the schools demonstrate the seriousness with which everyone in the district takes the district curriculum. The interactions are also a consequence of the fact that district curriculum and staff development policies and practices are targeted to well defined groups within the school, e.g., secondary school English teachers or primary grade teachers. Teachers know, for example, when some district action or policy is relevant for them; they know, as well, the others for whom it is relevant. Not surprising to any sociologist, like-affected individuals tend to interact, especially if they are

trying to interpret something new. Teachers are no exception.

The strength of the effect of district demands on schools was particularly noticeable in one school with a soon-to-retire principal who, teachers reported, had actually "retired on the job". The principal had little involvement or interest in school activities, but because the professional world of teachers in the district is not school-bound, the school was far from "rudderless". District level activities provide valuable direction directly, as well as indirectly. Teachers in elementary schools, for example, reportedly interact regularly with teachers of the same grade level in other schools in the district and claim to be very knowledgeable about how these teachers deal with district curriculum issues. At the high school level, subject-based department boundaries, both within and across schools, largely define the network of interactions of high school teachers. In an important sense, district demands shape professional communities in the district.

The possible wrinkle in the District A story, of course, is that the district curriculum restricts the discretion of most individual teachers in the district in significant ways. Only a small minority of teachers actually serve on district decision making committees at any one time. Yet, all teachers must follow the district curriculum and use the selected text. To what extent do teachers find it oppressive? In interviews, we probed teachers on this issue. Somewhat to our surprise, teachers reported that they do not feel unduly restricted by district curriculum policies; in fact, they strongly approve of the curriculum decision making

process. They claim a primary advantage of a common district curriculum is the professional exchanges it facilitates. Fairly well-delineated common purposes provide a familiar and relevant basis for interaction. Teachers teaching the same grade level or same subject simply have "a lot in common". Some teachers, who had taught only in District A, said they imagined teaching in a district without a common curriculum would be "chaotic" and "lonely". Teachers also stressed that the nature of teaching is such that, even with a standard curriculum, there is always considerable room for discretion in executing it in the classroom.

Interviews with teachers gave us the impression that the right to participate in curriculum decision making is, perhaps, more important to teachers than actually making decisions. Teachers know they have easy access to the decision process through a representative if they want it. They also know they have the right to volunteer and participate directly if they feel strongly. Teachers who served on district committees in previous years reported committee work is rewarding, but time consuming. They might volunteer every few years or so, but continual responsibility for curriculum and staff development programs would be too much. They claim they would soon "burn out". In any case, even if teachers do not serve on a decision making committee, they still have ample occasion for professional interaction through district staff development activities and the more informal exchanges it reportedly triggers within schools.

The district curriculum, to a large extent, drives the whole

system. Delegating school level personnel and budget decisions, for example, provides highly valued flexibility for dealing with school-specific implementation problems in District A, but curriculum and staff development are the common ground on which professionals in the district regularly interact. Indeed, school level personnel and budget decisions appear to be framed largely by the demands of the district curriculum.

In District B, each school works fairly independently developing its own education program, but the nationally-based education reform group plays an important role giving technical direction and support to teachers at the school level. The reform group provides them with principles to guide the process and consultants to help them in implementation. They also sponsor visits to other schools and districts working with the reform group. But the task of actually developing the curriculum falls squarely on teachers themselves. Teachers at each school are collectively responsible for developing their own school-specific curriculum. School site administrators also participate actively. The teachers in District B expend significant effort in this direction. Teachers, on average, spend 27.7 hours per month on activities,[11] mainly curriculum and staff development, beyond their regular teaching. The amount of time they spend in these activities is about twice what it is in District A. Not surprisingly, most of the difference between teachers in the two districts is the amount of time they spend working with other teachers within their own school. The ratio of school-level to

district-level activity[12] for District B is almost 4-to-1.

The teachers in both of these districts work in settings very different from the typical "egg crate" world of schools (Lortie, 1975) that fosters isolation and a highly individualistic teacher orientation. In both districts, teachers are stimulated, prodded, and supported to reflect with each other about their work and to act together on ways to make it better. In District A, the district curriculum defines the classroom focus of teachers; and the district staff development efforts and the professional exchanges it stimulates provide mechanisms for teachers to learn how to implement the curriculum. In District B, the reform group helps teachers to work collaboratively to frame their work more concretely and to share their teaching knowledge. Our analysis suggests that the curriculum-focused interaction among teachers is the most important consequence of the way the districts we studied structured themselves. We discuss this further below.

Technical Interaction: Control, Motivation, and Learning

To the extent that there are beneficial effects to the decentralized arrangements,[13] we suspect they are due more to the control, motivational, and learning effects associated with the professional interactions produced by the management arrangements than to efficiency effects typically presumed to flow from the increased discretion that accompanies decentralization to knowledgeable actors.

Control. A major way the management arrangements in the

districts affect teachers is through increased organizational (district/ school) control. Controls of some sort are important in any organization; without them, an organization is only a set of independent actors working according to their own individual proclivities and preferences. Controls, however, are problematic in education, largely because activities are nonroutine, unpredictable, and require initiative and flexibility (Dornbusch and Scott, 1975). Formal controls that assess outcomes or monitor conformity to rules are, for the most part, inappropriate. They typically engender resentment and resistance from educational professionals, usually for good reasons. As a consequence, however, education operates with very weak controls over the behavior of its actors. Some school level professionals are undoubtedly highly talented, committed, and effective actors without controls; but, just as undoubtedly, some are not. The question before us is: Can we devise controls that are more effective and still appropriate to the work of education? The cases described here suggest some of the ways we might devise more effective control mechanisms, but they require an understanding of the dynamics associated with social processes of control, not bureaucratic ones.

Social control, by definition, requires interaction. It is the process by which individual behavior is affected by the informational and normative influence of others (Salancik and Pfeffer, 1978; Bandura, 1977). In traditionally organized schools, teachers work, for the most part, isolated in their individual

classrooms with limited regular contact with other professionals. The likelihood of effective social controls operating in these schools is consequently very small. Both of the districts we studied, in contrast, structure numerous opportunities for individuals to interact with other professionals about their work. Indeed, in a sense, the districts demand it. With interaction levels as high as teachers in the two districts report, the emergence over time of some form of social control system, or culture, is highly likely. There is no guarantee, of course, that the culture that emerges will support productive work in the district. Many organizations are plagued by non-productive cultures. It is not difficult to imagine a highly interactive school district functioning, for example, with a culture of despair, disgruntlement, or apathy. Occasions for interaction, thus, are <u>necessary</u>, but <u>not sufficient</u>, for producing a productive work culture. The occasions establish the channels of communications, but not necessarily the substance.

The districts we studied go beyond simply providing opportunities for interaction. They structure the interactions to focus heavily on specific curriculum and staff development issues. They define the substantive focus of teachers' work; they establish the premises underlying teachers' actions. Grounding social controls in defined technical issues is important because of the generally poorly understood nature of the technology of education, its outcomes, and its boundaries. Unlike many types of work, the technology of teaching only very loosely defines appropriate

content for teachers' work interactions. One hears stories, for example, of schools where teachers are empowered and decisions about the xerox machines or students' hall behavior dominate teachers' efforts.[14] While such issues may be important to teachers, their likely effect on what happens in the classroom is remote.

In District A, the district curriculum identifies focused areas that shape professional exchanges of direct relevance to classroom practice. In a sense, the interactions and the curriculum are mutually reinforcing: The curriculum gives direction to the interactions; and the interactions give meaning to the curriculum in the daily work life of teachers. Teachers might talk, for example, about how they are dealing with a particular chapter in the district-selected text, or how students are reacting to a particular novel. The district curriculum establishes common ground for meaningful teacher exchanges. In District B, areas for discussion are not defined by the district. Teachers at the school level define a school-specific curriculum. Much of the teacher interactions in District B schools focus on what the curriculum should look like and how it should be integrated across subjects and across grade levels.

The interactions "control" the behavior of school level actors in three ways. The first and probably most important control is cognitive control. Curriculum-based interactions send regular messages to teachers about how to think about the focus of their work; they affect the premises that guide teachers' actions in the

classroom. Teachers presumably enter their separate classrooms and confront the specific challenges it presents with a framework defining what they are trying to accomplish and a set of strategies for accomplishing it.

The second way technical interactions control the behavior of teachers is by defining the boundaries and the dimensions of school level jobs. Developing curriculum, engaging in staff development activities, coordinating practice across schools, working with colleagues incorporating district policies into school practice are all an expected part of the jobs of principals and teachers in District A. The district curriculum and staff development programs have been in operation for a number of years and are embedded in the professional life of the district. Teachers interact regularly with each other about these concerns; the normative climate in the district encourages it. It is simply what teachers in the district do.

In District B, the controls are more intense, more direct, and more observable; a large fraction of the activities take place within the school and everyone is expected take part. Teachers put considerable peer pressure on each other to "be involved" and "do your share". In fact, in one school the pressure was so great that some teachers requested transfers to other schools. The data show, for example, not only that the average level of involvement is higher in District B schools, but also that the within-school variance is considerably smaller (Hannaway, 1991a). The reforms in District B are still relatively new and the involvement of teachers

in activities outside of teaching is not yet "taken-for-granted". Some teachers, for example, grumble about the new definitions of teacher responsibilities that are emerging.

The technical interactions also "control" the behavior of school level actors through peer pressure and peer monitoring of quality. In both districts, professional interactions make teachers more aware of the professional views, and to some extent the classroom practice, of other teachers. The public nature of much of teachers' professional lives in these two districts undoubtedly affects the behavior and the seriousness of purpose with which teachers attend to their work (O'Reilly, 1989). For this reason, we might argue that the high levels of technical interaction among teachers reduces the agency problems, mentioned in the beginning of the chapter, that are commonly assumed to be accompany decentralization.

Motivational Effects. The management arrangements in both districts involve school level actors in the decision making process in consequential ways; either directly or through a representative, they make decisions. Research suggests this type of involvement is likely to have motivational benefits for the individuals involved.[15] The most widely discussed motivational effect is increased commitment to those decisions that are made (Janis and Mann, 1977) and the related effect -- decreased resistance to change (Coch and French, 1948; Lawler, 1975; Lammers, 1967). These effects are generally assumed to result from psychological mechanisms associated, for example, with ego

involvement and feelings of responsibility (Hackman and Lawler, 1971; Hackman and Oldham, 1980). As a consequence, agency problems again may be reduced.

Social mechanisms are probably also at work linking decision making arrangements in the district with motivation (Salancik and Pfeffer, 1978). Involving teachers in decision making roles that determine what is to be taught and what training the staff needs, sends the message that teachers' views about their work are highly valued. In District A, both the teacher-designed district curriculum and the district staff development program provide evidence that the district pays attention to what teachers say. The district-structured interactions also convey the clear message that the substance of teachers' work is important... important enough that the district directs serious attention of both teachers and administrators to it and supports this attention financially as well as symbolically. District B's decision making arrangements obviously show at least as high regard for teachers and their work.

We have no data to assess the effects of increased motivation on teacher effort in the classroom. But, the heavy focus in both districts on issues that relate directly to classroom practice would lead us to expect effects to show in the classroom. Teachers, for example, are likely to feel more committed to a program of study that they helped to design and that others think is important; and this commitment is likely to affect the level of effort teachers expend teaching the curriculum in the classroom. Any divergence of interest between the school district and

individual teachers is presumably lessened as a consequence.

Learning Effects. In addition to control and motivational consequences, professional interactions no doubt also have significant cognitive consequences in terms of learning as teachers exchange ideas and discuss their work. The structural arrangements in the district, thus, have important knowledge-generating effects. In traditional schools, teachers learn from their own experience, but learning from the experience of others is limited. In settings where professionally oriented interactions occur, the learning of individual teachers can be shared so that teachers become aware of new possibilities in classroom practice. Private learning becomes a public good. Thus, a major likely consequence of the professional interactions promoted by the districts' structural arrangements is a more knowledgeable faculty of teachers.

DIFFERENCES AND COMPLICATIONS

The similarities in the two districts are more important for the purposes of this chapter than the differences, but the differences are also instructive.

The arrangements operating in District B are considerably more work intensive for school level actors than those operating in District A. The school is the locus of reform, as we have noted, and the management design presumes the involvement of all school level actors, not just a representative set. Teachers are expected to define and develop the curriculum as well as to determine the

best ways to implement it. We speculate here about some of the conditions that might make more intensive work of this sort at the school level more appropriate, as well as some of the likely effects and cautions associated with it.

In interviews, teachers in District B expressed both greater enthusiasm and greater frustration with the decentralization reforms than teachers in District A. Part of this difference is no doubt due to the early stage of the reforms in District B. In surveys, teachers in District B, on average, reported significantly greater influence over school policy, greater control over classroom practices, better administrator-teacher relationships, greater support for innovation and a more personalized school environment than their District A counterparts.[16] In interviews, however, teachers reported that they were tired and that they "may be doing too much". Despite greater teacher influence, more support for innovation, better relations with administrators, and higher rates of interaction with their colleagues, teachers in District B reported significantly lower levels of job satisfaction as well as lower levels of efficacy teaching, on average, than teachers in District A. What do these findings mean?

The differences between the districts indicate some of the complexities involved in school reform. Multiple factors affect how schools work and how teachers are engaged as professionals in them. One major difference between the districts is the type of students they serve. The average student with whom teachers work in District B, for example, is very different from the average

student in District A. As noted in the district descriptions earlier, the students in District A, for the most part, are advantaged and student performance in the district is high; a large fraction of the students in District B are "at risk". Only six percent of the students in District A are eligible for free/ reduced lunch; forty-five percent of the students in District B are eligible. Almost any educational professional would probably agree that the teachers in District B have a more difficult job than the teachers in District A. It should be no wonder that their feelings about their teaching efficacy are lower than teachers in District A.[17] Tougher jobs may require different types and/ or different levels of professional exchange and technical support. More intensive school-based reforms, such as those operating in District B, may indeed be better suited to "at risk" situations than "advantaged" situations. But engaging in professional interactions requires time and energy which may be in shorter supply in schools with the pressing educational problems of "at risk" students than in schools with more advantaged students.

The job satisfaction ratings in District B are probably related to some of the same factors that affect their efficacy ratings, but job satisfaction is also affected by other factors. The reform process, for example, was clearly affected by the limited resources of the district; teacher attitudes about their expenditure of effort were clouded by the low salaries they received. One principal thought low teacher salaries "were going to be the eventual downfall" of the reforms.

We do not have the data to assess the effect of management arrangements on changes in job attitudes, but the experiences in District B suggest some words of caution. The costs of reforms that promote teachers' involvement in activities outside the classroom need to be carefully identified and assessed alongside the benefits. Although the involvement of teachers in activities outside their classroom teaching is, for the most part, directly related to their teaching, the management design in District B requires high levels of involvement. The District B design is considerably more "bottom heavy" than the design in District A; school developed curricula demand broad participation and high levels of teacher effort. Since there is no perfect curriculum,[18] there is no natural limit to curriculum development work. When is enough, enough? "Wheel-spinning" is a real danger in the absence of some authority setting a deadline or a standard, or in the absence of some feedback mechanism to mark progress. Many current reforms in education are calling for greater teacher involvement in decision making -- and we agree in principle with these calls -- but there are necessarily limits to this involvement. At some point, it can simply become too much and, indeed, do more harm than good. We are not saying that teachers in District B have reached this point, but there are some worrisome signs that suggest that teachers might not be able to sustain the high levels of effort they are expending, at least not without seriously affecting the level of energy they have left for the classroom. The District B Superintendent is well aware of the challenges before the district.

In an interview, he stressed it is easy to generate a high level of energy and optimism, and maybe even some productivity gains in the beginning of new reforms, especially with teachers who have been ignored for so long. "The hard part" he foresees, "is sustaining it". If discouragement sets in, mobilizing teacher energies for another round, will be truly difficult.

CONCLUDING REMARKS

In this paper, we have argued that the standard thinking about decentralization, particularly a principal-agent approach, has limited applicability to education. But this does not mean that changes in the structure of education do not have important effects on the behavior of those involved in the education process, and therefore on the performance of educational systems. But, if decentralization seems, in some instances, to have beneficial effects, we need to know why. Is actual decision making authority necessary? Or, is regular professional involvement with others sufficient? Are different structures more appropriate for some settings, e.g., working with advantaged students, than for other settings, e.g., working with "at-risk" students? Are strategies effective in the short run viable in the long run?

We have provided here a framework for thinking about how decentralization may affect educational performance and some of the conditions necessary for it to have beneficial effects. We have argued that thinking about the implications of decentralization

strategies in terms of clarifying teachers' objectives and expanding teachers' understanding of the instructional process may be particularly worthwhile. Explicitly structuring teacher interactions around technical demands, i.e., issues of curriculum and teaching, appears to be a critical element of successful decentralization. We argue that technical interactions among teachers form the basis of effective social control, motivational, and learning processes that are necessary for a well-run decentralized system. In short, we argue what should be obvious: Structural reforms that direct teachers attention to their central functions, and that stimulate them to interact professionally around defined common objectives, and that give them a sense of importance of their mission are nearly certain to result in more effective schools than traditional "egg-crate" structures. What is not obvious and what requires systematic analysis is the relative merits and costs associated with alternative structures designed to direct the attention of school level actors. The research reported here is a beginning step in that direction.

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NOTES

1. Though not germane to the discussion here, there are also issues concerning the relationship between decentralization and political representation. See both Weiler and Winkler, in this volume, for discussion.

2. See Jennergren, 1981, for review of this research.

3. See, for example, Meyer and Scott, 1983 and Hannaway and Sproull, 1979.

4. Although we do not know the standard respondents were using, teachers themselves in the High School and Beyond survey report having high levels of control over what goes on in their classrooms. On a six-point scale where '6' refers to 'total control', 92 percent report '5' or '6' for teaching techniques; 72 percent for content and skills taught in class; 68 percent for student discipline; and 65 percent for textbooks and materials (Rowan, 1990).

5. This process of delineating and clarifying objectives is distinct from what Simon (1991) and others have emphasized, in inducing an identification of the interests of the agent with that of the organization.

6. See Hannaway, 1989, for evidence on this point.

7. See Hannaway, 1991, for a full report on this research effort.

8. It is interesting to note that principals nearly always, and teachers very often, use the term "we" to refer to the district, not to the school.

9. Annual Report 1987-1988, District B Schools Improvement Program.

10. Teachers receive monetary compensation for fourteen percent of this work and release time for twenty-five percent of it. An additional fourteen percent is

during planning periods, and the remainder is on personal time.

11. Teachers receive release time for fifty-three percent of this time and monetary compensation for eight percent. Fifteen percent is during planning periods, and the remainder is on their personal time.

12. District level activity would include conferences and workshops organized by the reform group as well as district-sponsored fairs where teachers in each school describe their programs.

13. We have no information, for example, on improvements in student achievement.

14. Conversation with Carol Weiss, American Public Policy and Management meetings, Bethesda, Maryland, October, 1991.

15. See Locke and Schweiger, 1979, for review.

16. There were differences from school to school on these measures, but in almost all cases the average for each of the schools in District B were higher than the averages in District A. See Hannaway, 1991, for details.

17. See Ashton and Webb, 1986; Rosenholtz, 1989; Pallas, 1988; Hannaway, 1991 for discussion of teacher efficacy and student achievement.

18. If there is a perfect curriculum, the criteria for recognizing it have not yet been established.

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